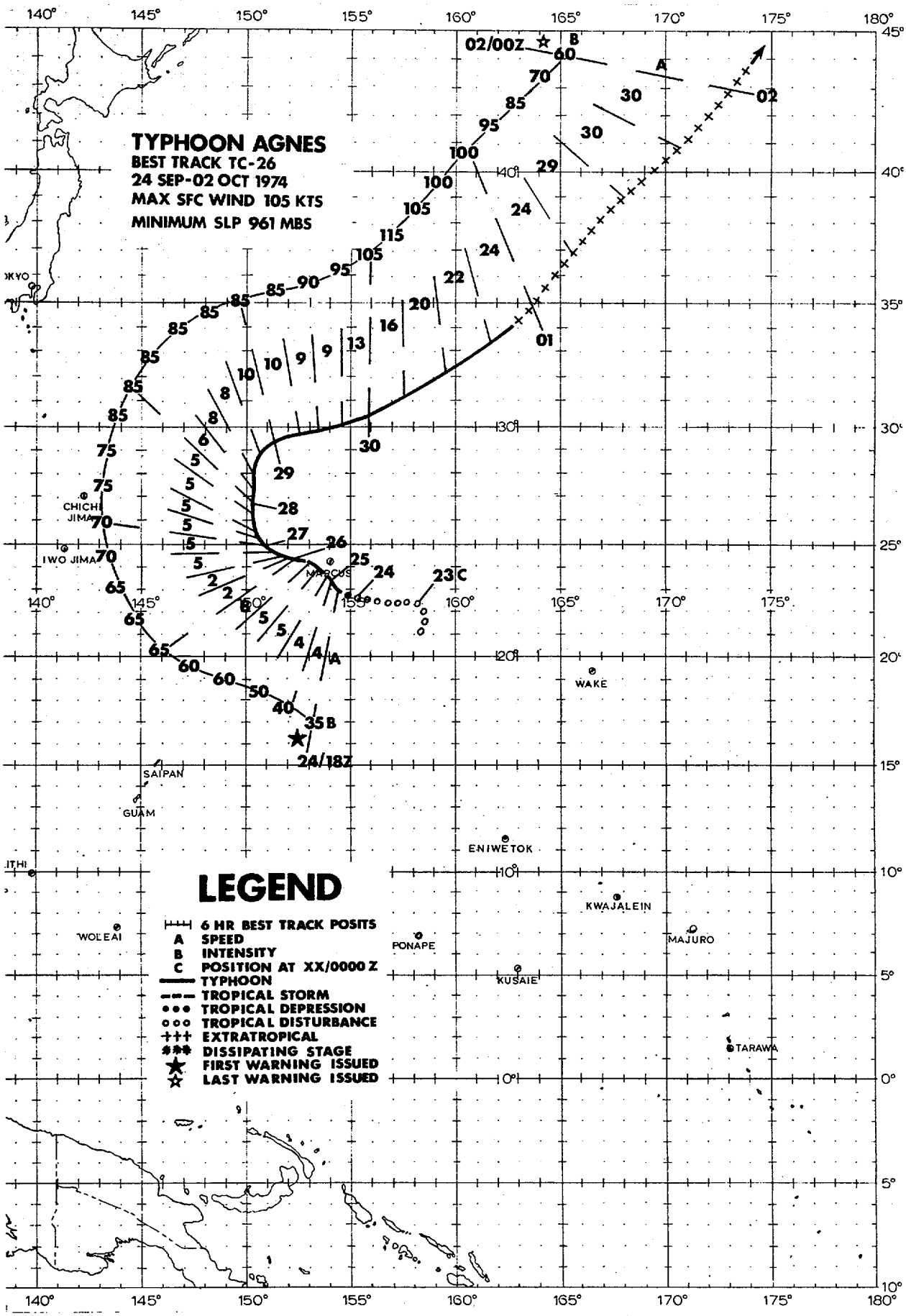
TYPHOON AGNES
BEST TRACK TC-26
24 SEP-02 OCT 1974
MAX SFC WIND 105 KTS
MINIMUM SLP 961 MBS
02/00Z
02
01
24/18Z
CHICHI JIMA
IWO JIMA
MARCUS
WAKE
SAIPAN
GUAM
ENIWETOK
KWAJALEIN
MAJURO
PONAPE
KUSAIE
TARAWA
WOLEAI
LEGEND
6 HR BEST TRACK POSITS
A SPEED
B INTENSITY
C POSITION AT XX/0000 Z
TYPHOON
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
EXTRATROPICAL
DISSIPATING STAGE
FIRST WARNING ISSUED
LAST WARNING ISSUED

Evolving from a disturbance initiated by an upper tropospheric low, Agnes developed to depression intensity about 150 nm southeast of Marcus Island on 24 September. Although weak, the flow about the subtropical ridge to the north of the depression kept the tropical cyclone on a slow westerly and later a west-northwesterly track for the next three days.

Indications from satellite data revealed that the circulation was intensifying rapidly on the 25th. Proof of this development occurred when the center of Agnes passed about 60 nm south of Marcus Island later that day. The Japanese meteorological station on the island experienced strong easterly gusts to 81 knots (25/1140Z) following a minimum barometer reading of 998.7 mb (25/0600Z) (Figure 4-18). Aircraft reconnaissance of Agnes the next day (26/1450Z) confirmed that the storm had gained typhoon force. Flight level (700 mb) winds of 70 knots and a central pressure of 984 mb were reported.

As a cell in the subtropical ridge west of Agnes weakened significantly on the 27th, the typhoon began to abruptly track northward. With upper level westerlies strengthening east of Japan, Agnes shifted to an east-northeast track 36 hours thereafter, and accelerated in forward speed early on the 29th (Figure 4-19).

Like typhoon Virginia, Agnes continued to deepen after recurvature. Reconnaissance aircraft observed the lowest central pressure of the typhoon's life (961 mb) on the 30th (0303Z). In addition, flight level (700 mb) winds of 135 knots were observed 40 nm from the center during exit from the eye. Forward speed of Agnes at this time had increased to 15 knots.

Over the Kuril Islands, a 500 mb low was tracking eastward accompanied by a deep trough. The amplification of strong southwesterly flow ahead of the trough caused Agnes to turn on a northeast course and accelerate to 30 knots by 1 October. Satellite data indicated Agnes acquired extratropical characteristics after crossing 35°N; however, the circulation remained intense as evidenced by aircraft flight level (700 mb) winds of 110 knots (01/0415Z). The strong extratropical low of Agnes continued to race poleward thereafter, finally merging with the advancing 500-mb low 300 nm south of Attu in the Aleutian chain on the 3rd.

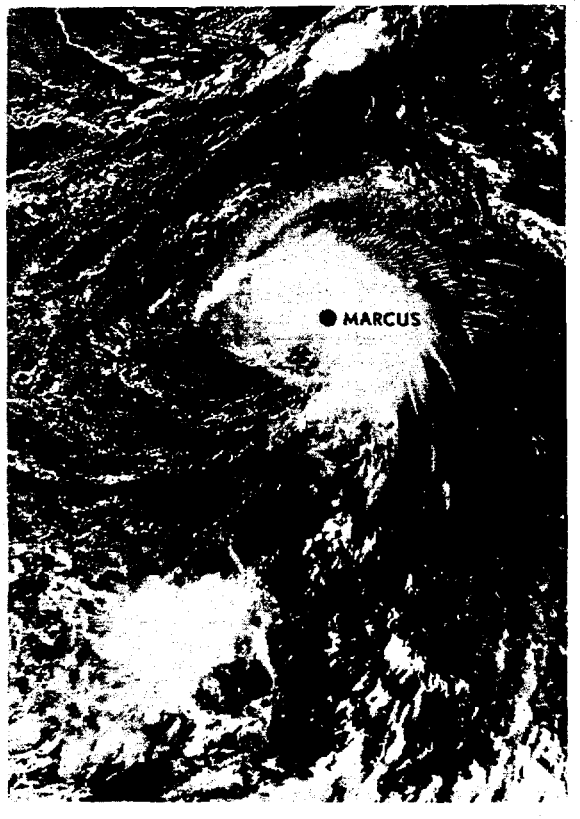

FIGURE 4-18. *Agnes reaching typhoon strength 100 nm west of Marcus Island, 25 September 1974, 2151Z. (DMSP imagery)*

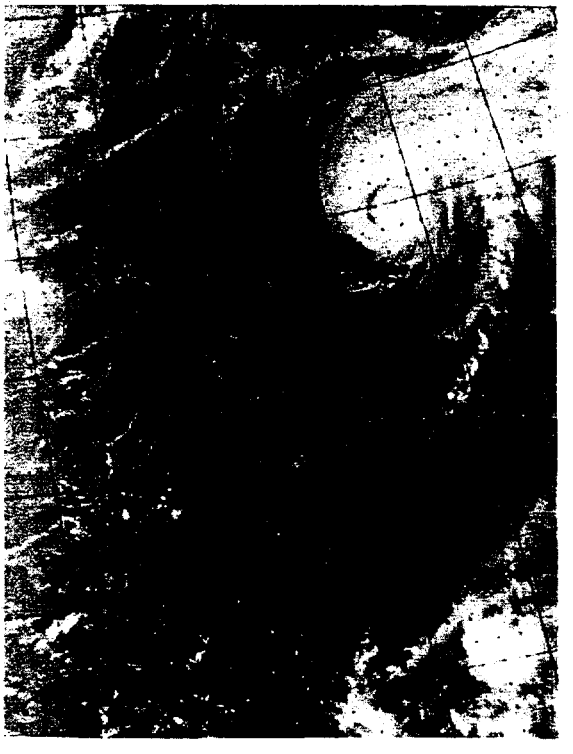

FIGURE 4-19. *Moonlight visual of Typhoon Agnes after shift to an easterly track. Lights of Tokyo 750 nm to the northwest and other cities in Japan are visible in left-hand portion of data, 29 September 1974, 1119Z. (DMSP imagery)*